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चिमटी, पंच, नाक ( सिटेल्लि 'स  
कोटर और हैजेक 'स स्फेनोइडल —  
विशिष्टि

( पहला पुनरीक्षण )

**Forceps, Punch, Nasal (Citelli's  
Antrum and Hajek's Sphenoidal)  
— Specification**  
( *First Revision* )

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Ear, Nose and Throat Surgery Instruments Sectional Committee and approval of the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1968. First revision of this standard has been taken up to update it with development taken place in the field. All the amendments issued so far have been incorporated in this revision.

This standard is one of a series of Indian Standards on surgical instruments. This standard has been prepared based on indigenous manufacturers' data/practices prevalent in the field in India.

This standard requires reference to IS 3642 (Part 1) : 1990 'Surgical instruments — Specification: Part 1 Non-cutting articulated instruments (*second revision*)', whose provisions, subject to the limitations specified herein, are applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'.

# *Indian Standard*

## FORCEPS, PUNCH, NASAL (CITELLI'S ANTRUM AND HAJEK'S SPHENOIDAL) — SPECIFICATION

### ( *First Revision* )

#### 1 SCOPE

This standard lays down the requirements for nasal punch forceps (Citelli's antrum and Hajek's sphenoidal).

#### 2 REFERENCES

The Indian Standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

<i>IS No.</i>	<i>Title</i>
1501 (Part 1) : 2013	Metallic materials — Vickers hardness test: Part 1 Test method ( <i>fourth revision</i> )
1570 (Part 5) : 1985	Schedules for wrought steels : Part 5 Stainless and heat-resisting steels ( <i>second revision</i> )
3642 (Part 1) : 1990	Surgical instruments — Specification: Part 1 Non-cutting, articulated instruments ( <i>second revision</i> )
7531 : 1990	Surgical instruments — Corrosion resistance of stainless steel surgical instruments — Methods of tests ( <i>first revision</i> )

#### 3 MATERIAL

**3.1** The forceps and springs shall be made from stainless steel conforming to Designation 30Cr13 of IS 1570 (Part 5) or the composition given below:

	<i>Percent</i>
Carbon	0.35 to 0.45
Silicon	0.10 to 0.70
Manganese	0.30 to 0.70
Nickel	1.00, <i>Max</i>
Chromium	12.0 to 14.0

**3.2** The knurled thumb screw and pin, where used, shall be of stainless steel conforming to the Designation mentioned in **3.1**.

#### 4 SHAPES AND DIMENSIONS

**4.1** The general shapes and dimensions of the forceps shall be as given in Fig. 1 and 2.

**4.2** Tolerances on dimensions where not specified shall conform to IS 3642 (Part 1).

#### 4.3 Joints

The joints of the forceps shall be as given in **4.3.1** and **4.3.2**. The joints shall work smoothly without undue shake or play.

**4.3.1** The joint for Citelli's antrum forceps shall be of recessed-screw type conforming to Fig. 1.

**4.3.2** The joint for Hajek's sphenoidal forceps shall be as shown in Fig. 2.

#### 5 WORKMANSHIP AND FINISH

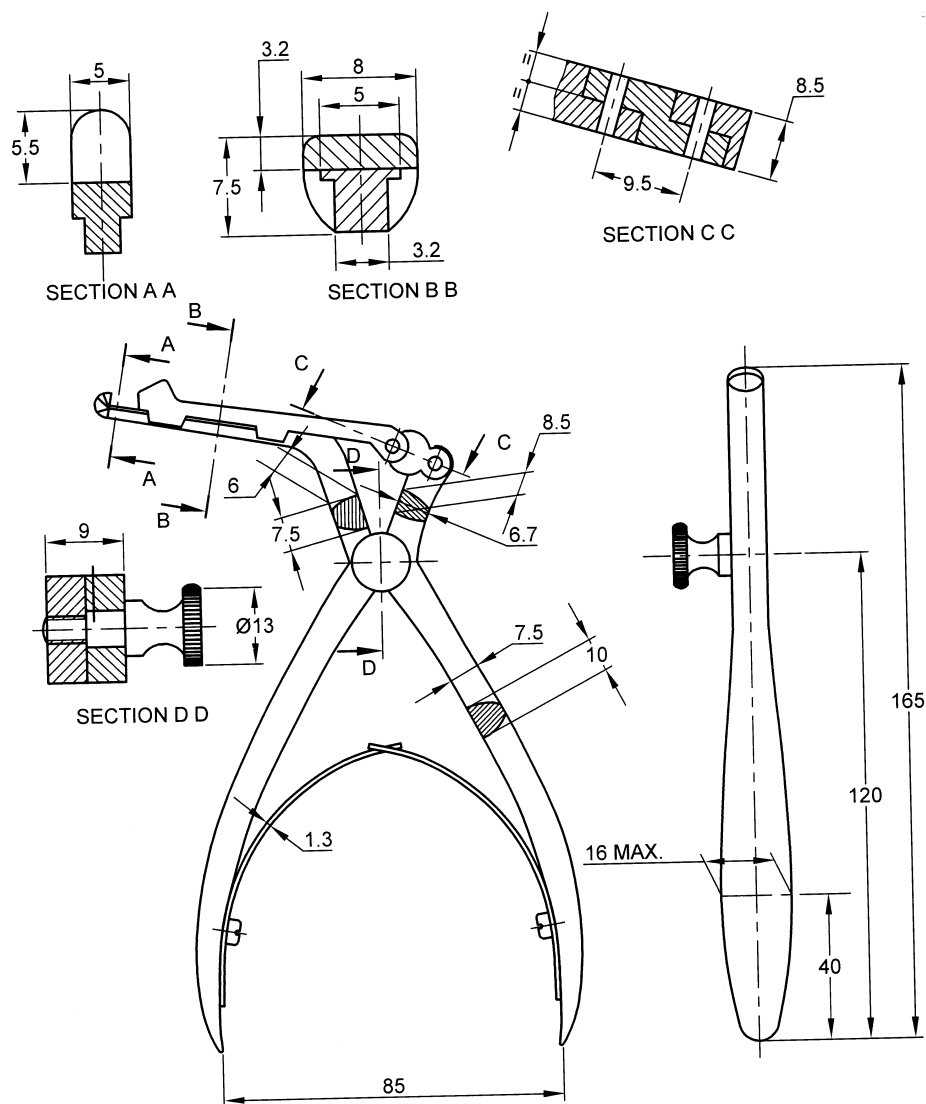
The forceps shall be of a symmetrical and balanced construction and the sliding of the jaws shall be even and without jerks. The punching nose or tip shall have a sharp edge and shall be recessed to provide for a good cutting action. The tips shall register accurately to facilitate efficient shearing. The forceps shall be free from surface defects like scales, burrs, pits, seams, cracks, etc. The forceps shall be passivated and polished bright.

#### 6 HEAT TREATMENT

The forceps, except the punching tips, shall be suitably hardened and tempered to give a uniform hardness of 400 to 460 HV. The punching tips shall be hardened and tempered to give a hardness of 550 to 600 HV. The hardness may be tested in accordance with IS 1501 (Part 1).

#### 7 TESTS

**7.1** Punch forceps shall be made to punch cow-curried leather of the following thicknesses, by pressing the arms with moderate force:



All dimensions in millimetres.

FIG. 1 FORCEPS, PUNCH, ANTRUM, CITBLU'S PATTERN

	<i>Type</i>	<i>Thickness of Leather, mm</i>
a)	Citelli's antrum	1.5
b)	Hajek's sphenoidal	1.0

The forceps shall punch clean and neat without damage to its punching tips.

## 7.2 Corrosion Resistance

The instrument shall satisfy the boiling and autoclaving test as specified in IS 7531.

**8 MARKING**

**8.1** Each forceps shall be clearly and indelibly marked with the manufacturer's name, initials or trade-mark in addition to the letters 'SS'.

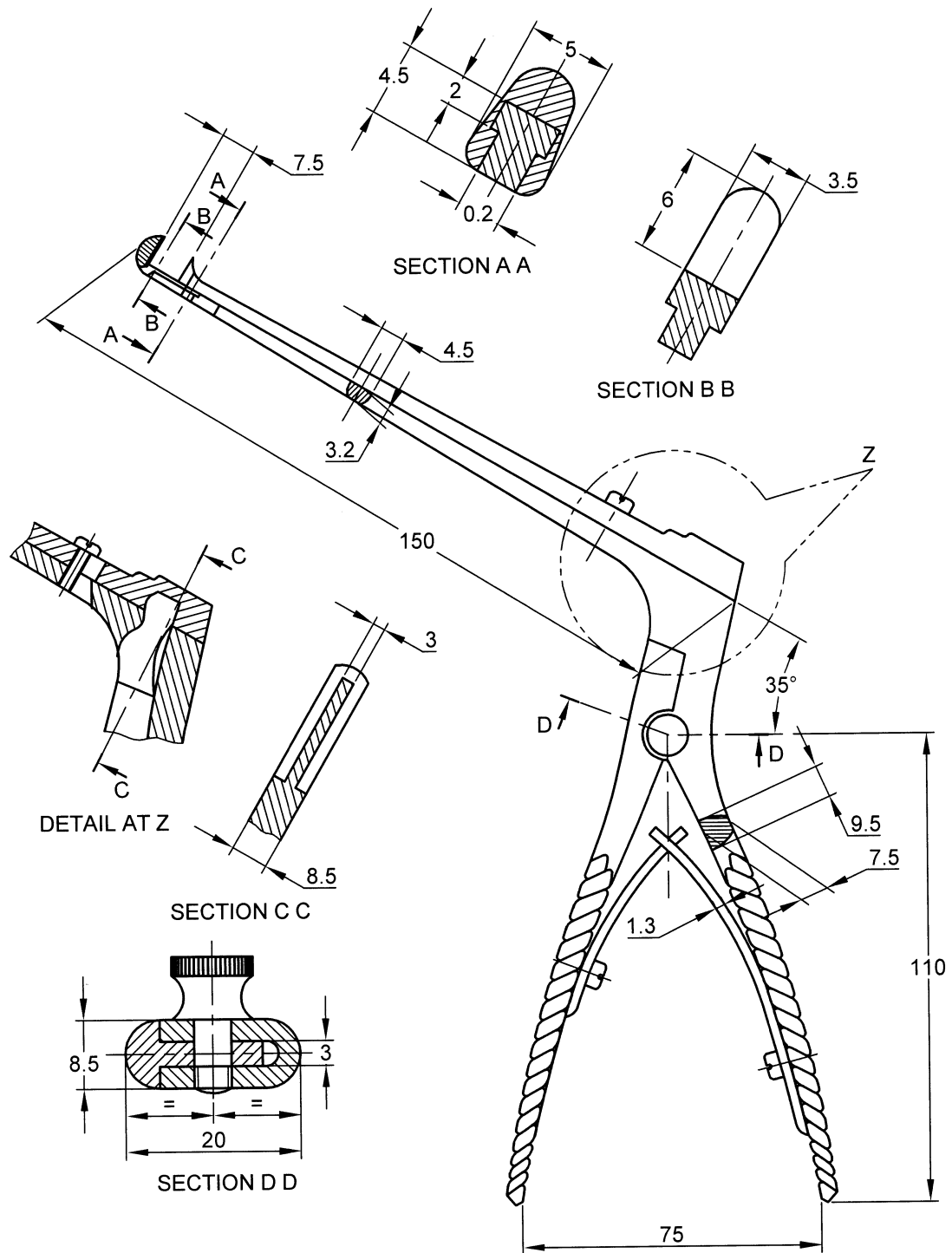
## 8.2 BIS Certification Marking

The forceps may also be marked with the Standard Mark.

**8.2.1** The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 2016* and the rules and regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## 9 PACKING

The forceps shall be individually wrapped in moisture-proof paper or polyethylene bag. They shall be packed in a manner that coming into contact with each other is avoided.



All dimensions in millimetres.

FIG. 2 FORCEPS, PUNCH, SPHENOIDAL, HAJEK'S PATTERN



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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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